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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

"Perchlorate Material-special handling may apply, see  
[www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

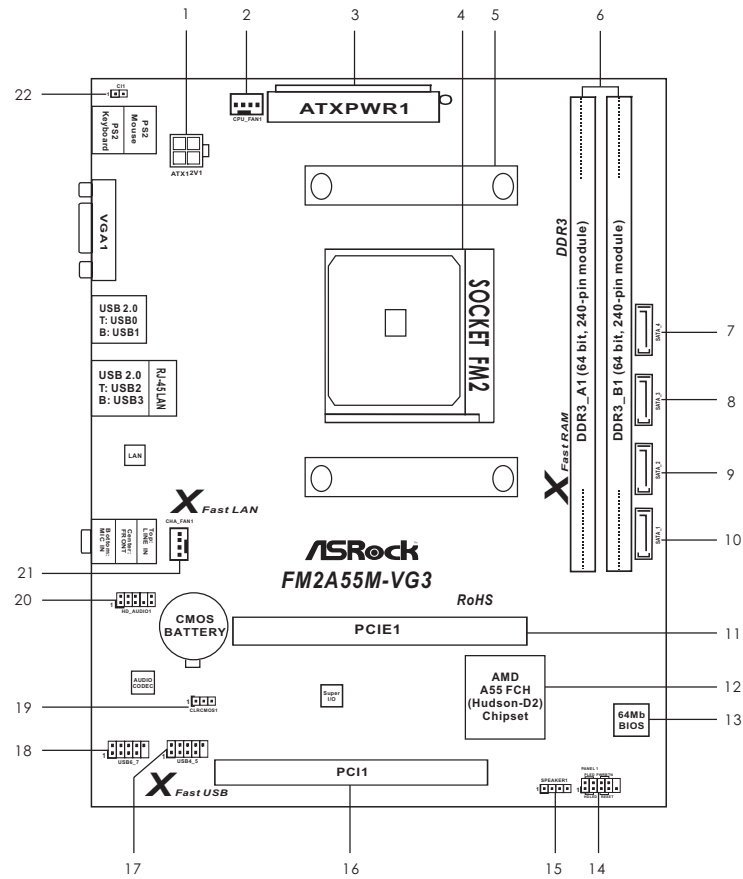
**ASRock Website:** <http://www.asrock.com>



English

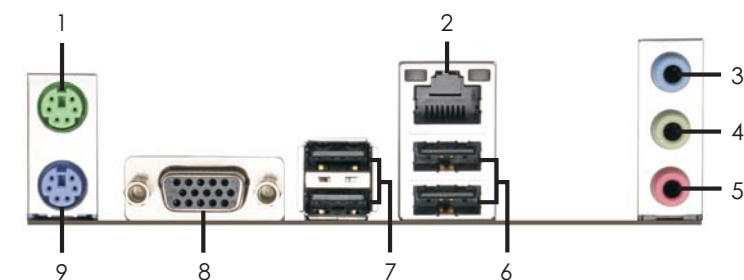
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## Motherboard Layout



- |    |   |    |                                      |
|----|---|----|--------------------------------------|
| 1  | ATX 12V Power Connector (ATX12V1)                               | 12 | Southbridge Controller               |
| 2  | CPU Fan Connector (CPU_FAN1)                                    | 13 | SPI Flash Memory (64Mb)              |
| 3  | ATX Power Connector (ATXPWR1)                                   | 14 | System Panel Header (PANEL1)         |
| 4  | CPU Socket  | 15 | Chassis Speaker Header (SPEAKER1)    |
| 5  | CPU Heatsink Retention Module                                   | 16 | PCI Slot (PCI1)                      |
| 6  | 2 x 240-pin DDR3 DIMM Slots<br>(Dual Channel: DDR3_A1, DDR3_B1) | 17 | USB 2.0 Header (USB4_5)              |
| 7  | SATA2 Connector (SATA_4)  | 18 | USB 2.0 Header (USB6_7)              |
| 8  | SATA2 Connector (SATA_3)  | 19 | Clear CMOS Jumper (CLRCMOS1)         |
| 9  | SATA2 Connector (SATA_2)  | 20 | Front Panel Audio Header (HD_AUDIO1) |
| 10 | SATA2 Connector (SATA_1)  | 21 | Chassis Fan Connector (CHA_FAN1)     |
| 11 | PCI Express 2.0 x16 Slot (PCIE1)                                | 22 | Chassis Intrusion Header (CI1)       |

I/O Panel



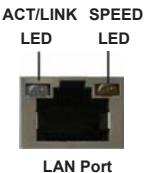
- 1 PS/2 Mouse Port (Green)
- \* 2 LAN RJ-45 Port
- 3 Line In (Light Blue)
- \*\* 4 Front Speaker (Lime)
- 5 Microphone (Pink)
- 6 USB 2.0 Ports (USB23)
- 7 USB 2.0 Ports (USB01)
- 8 D-Sub Port (VGA1)
- 9 PS/2 Keyboard Port (Purple)

\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

LAN Port LED Indications

Activity/Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED	
Status	Description
Off	10Mbps connection
Orange	100Mbps connection
Green	1Gbps connection



\*\* To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. Please refer to below steps for the software setting of Multi-Streaming. After restarting your computer, please double-click "Realtek HD Audio Manager" on the system tray. Set "Speaker Configuration" to "Quadraphonic" or "Stereo". Click "Device advanced settings", choose "Make front and rear output devices playbacks two different audio streams simultaneously", and click "ok". Then reboot your system.

## 1. Introduction

Thank you for purchasing ASRock **FM2A55M-VG3** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

This Quick Installation Guide contains introduction of the motherboard and step-by-step installation guide. More detailed information of the motherboard can be found in the user manual presented in the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website <http://www.asrock.com>  
If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Package Contents

ASRock **FM2A55M-VG3** Motherboard (Micro ATX Form Factor)  
ASRock **FM2A55M-VG3** Quick Installation Guide  
ASRock **FM2A55M-VG3** Support CD  
2 x Serial ATA (SATA) Data Cables (Optional)  
1 x I/O Panel Shield



#### **ASRock Reminds You...**

To get better performance in Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit, it is recommended to set the BIOS option in Storage Configuration to AHCI mode. For the BIOS setup, please refer to the "User Manual" in our support CD for details.

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## 1.2 Specifications

<b>Platform</b>	<ul style="list-style-type: none"><li>- Micro ATX Form Factor</li><li>- All Solid Capacitor design</li></ul>
<b>CPU</b>	<ul style="list-style-type: none"><li>- Support for Socket FM2 100W processors</li><li>- Supports AMD's Cool 'n' Quiet™ Technology</li><li>- UMI-Link GEN2</li></ul>
<b>Chipset</b>	<ul style="list-style-type: none"><li>- AMD A55 FCH (Hudson-D2)</li></ul>
<b>Memory</b>	<ul style="list-style-type: none"><li>- Dual Channel DDR3 Memory Technology</li><li>- 2 x DDR3 DIMM slots</li><li>- Support DDR3 1866/1600/1333/1066 non-ECC, un-buffered memory (see <b>CAUTION 1</b>)</li><li>- Max. capacity of system memory: 32GB (see <b>CAUTION 2</b>)</li><li>- Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2</li><li>- Supports AMD Memory Profile (AMP)</li></ul>
<b>Expansion Slot</b>	<ul style="list-style-type: none"><li>- 1 x PCI Express 2.0 x16 slot (PCI-E @ x16 mode)</li><li>- 1 x PCI slot</li><li>- Supports AMD Dual Graphics (see <b>CAUTION 3</b>)</li></ul>
<b>Graphics</b>	<ul style="list-style-type: none"><li>- AMD Radeon HD 7000 graphics</li><li>- DirectX 11, Pixel Shader 5.0</li><li>- Max. shared memory 2GB</li><li>- Supports D-Sub with max. resolution up to 1920x1600 @ 60Hz</li><li>- Supports AMD Steady Video™ 2.0: New video post processing capability for automatic jitter reduction on home/online video</li></ul>
<b>Audio</b>	<ul style="list-style-type: none"><li>- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)</li></ul>
<b>LAN</b>	<ul style="list-style-type: none"><li>- PCI-E x1 Gigabit LAN 10/100/1000 Mb/s</li><li>- Realtek RTL8111E</li><li>- Supports LAN Cable Detection</li><li>- Supports Energy Efficient Ethernet 802.3az</li><li>- Supports PXE</li></ul>
<b>Rear Panel I/O</b>	<p>I/O Panel</p> <ul style="list-style-type: none"><li>- 1 x PS/2 Mouse Port</li><li>- 1 x PS/2 Keyboard Port</li><li>- 1 x VGA Port</li><li>- 4 x Ready-to-Use USB 2.0 Ports</li><li>- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)</li><li>- HD Audio Jack: Line in / Front Speaker / Microphone</li></ul>

<b>Connector</b>	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1 and RAID 10), NCQ, AHCI and "Hot Plug" functions</li> <li>- 1 x Chassis Intrusion header</li> <li>- 1 x CPU Fan connector (4-pin)</li> <li>- 1 x Chassis Fan connector (4-pin)</li> <li>- 24 pin ATX power connector</li> <li>- 4 pin 12V power connector</li> <li>- Front panel audio connector</li> <li>- 2 x USB 2.0 headers (support 4 USB 2.0 ports)</li> </ul>
<b>BIOS Feature</b>	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS with GUI support</li> <li>- Supports "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Supports jumperfree</li> <li>- SMBIOS 2.3.1 Support</li> <li>- DRAM, SB Voltage Multi-adjustment</li> </ul>
<b>Support CD</b>	<ul style="list-style-type: none"> <li>- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser and Toolbar</li> </ul>
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU Temperature Sensing</li> <li>- Chassis Temperature Sensing</li> <li>- CPU Fan Tachometer</li> <li>- Chassis Fan Tachometer</li> <li>- CPU/Chassis Quiet Fan</li> <li>- CPU/Chassis Fan Multi-Speed Control</li> <li>- CASE OPEN detection</li> <li>- Voltage Monitoring: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit compliant</li> </ul>
<b>Certifications</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP Ready (ErP/EuP ready power supply is required)</li> </ul>

\* For detailed product information, please visit our website: <http://www.asrock.com>

#### WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using third-party overclocking tools. Overclocking may affect your system's stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

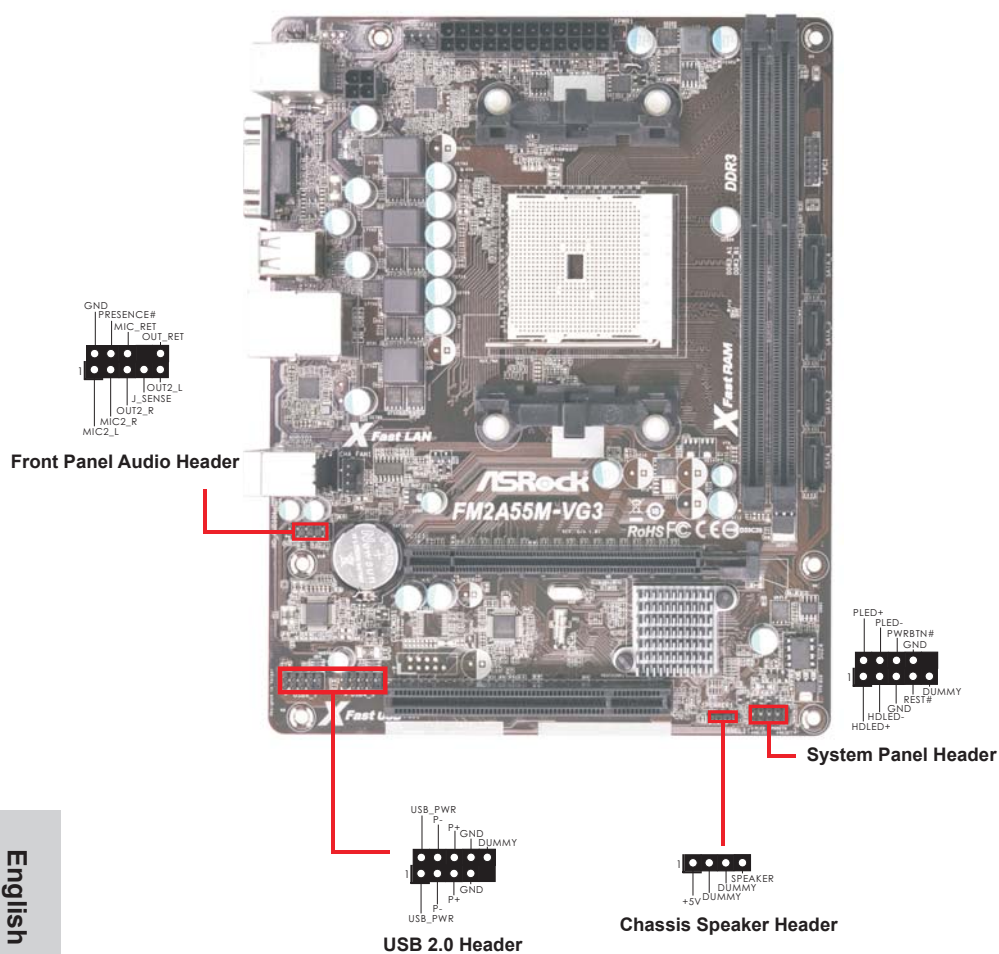
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### **CAUTION!**

1. Whether 1866/1600MHz memory speed is supported depends on the CPU you adopt. If you want to adopt DDR3 1866/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.  
ASRock website <http://www.asrock.com>
2. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 8 / 7 / Vista™. For Windows® 64-bit OS with 64-bit CPU, there is no such limitation. You can use ASRock XFast RAM to utilize the memory that Windows® cannot use.
3. For the discrete GPUs which support Dual Graphics technology, please refer to <http://www.amd.com/us/products/technologies/dual-graphics/Pages/dual-graphics.aspx#3> for details.

### 1.3 Pin Header Easy Installation Guide

ASRock motherboard is equipped with pin headers with obvious colors which indicate you to recognize the crucial headers more easily. Please refer to below illustrations for the pin definition of onboard headers. If you want to have more information about the usage of these headers, please refer to “Jumpers Setup” and “Onboard Headers and Connectors” for details.

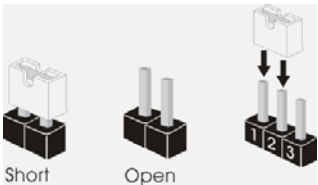




English



1.4 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is “Short”. If no jumper cap is placed on pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when jumper cap is placed on these 2 pins.



Jumper	Setting		Description
Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 19)	1_2 	2_3 	
	Default	Clear CMOS	

Note: CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile, 1394 GUID and MAC address will be cleared only if the CMOS battery is removed.



If you clear the CMOS, the case open may be detected. Please adjust the BIOS option “Clear Status” to clear the record of previous chassis intrusion status.

## 1.5 Onboard Headers and Connectors



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

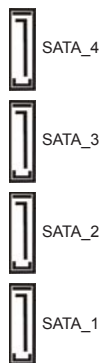
### Serial ATA2 Connectors

(SATA\_1: see p.2, No. 10)

(SATA\_2: see p.2, No. 9)

(SATA\_3: see p.2, No. 8)

(SATA\_4: see p.2, No. 7)



These four Serial ATA2 (SATA2) connectors support SATA data cables for internal storage devices. The current SATA2 interface allows up to 3.0 Gb/s data transfer rate.

### Serial ATA (SATA) Data Cable (Optional)

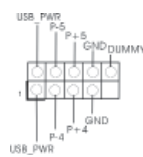


Either end of the SATA data cable can be connected to the SATA2 hard disk or the SATA2 connector on this motherboard.

### USB 2.0 Headers

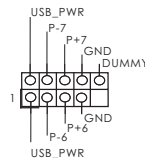
(9-pin USB4\_5)

(see p.2 No. 17)



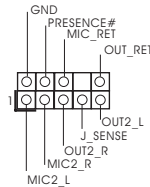
(9-pin USB6\_7)

(see p.2 No. 18)



Besides four default USB 2.0 ports on the I/O panel, there are two USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

**Front Panel Audio Header**  
(9-pin HD\_AUDIO1)  
(see p.2 No. 20)

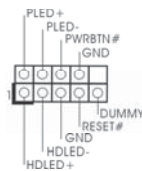


This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.



1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
  - A. Connect Mic\_IN (MIC) to MIC2\_L.
  - B. Connect Audio\_R (RIN) to OUT2\_R and Audio\_L (LIN) to OUT2\_L.
  - C. Connect Ground (GND) to Ground (GND).
  - D. MIC\_RET and OUT\_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
  - E. To activate the front mic.  
For Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:  
Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

**System Panel Header**  
(9-pin PANEL1)  
(see p.2 No. 14)



This header accommodates several system front panel functions.



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

**PWRBTN (Power Switch):**

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

**RESET (Reset Switch):**

Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

**PLED (System Power LED):**

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

**HDLED (Hard Drive Activity LED):**

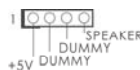
Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

**Chassis Speaker Header**

(4-pin SPEAKER 1)

(see p.2 No. 15)



Please connect the chassis speaker to this header.

**Chassis Fan Connector**

(4-pin CHA\_FAN1)

(see p.2 No. 21)

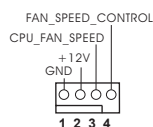


Please connect the fan cable to the fan connector and match the black wire to the ground pin.

**CPU Fan Connector**

(4-pin CPU\_FAN1)

(see p.2 No. 2)



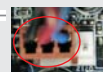
Please connect the CPU fan cable to the connector and match the black wire to the ground pin.



Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

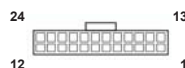
Pin 1-3 Connected

3-Pin Fan Installation



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**ATX Power Connector**  
(24-pin ATXPWR1)  
(see p.2 No. 3)

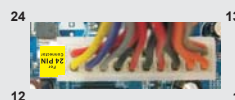


Please connect an ATX power supply to this connector.



Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation



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**ATX 12V Power Connector**  
(4-pin ATX12V1)  
(see p.2 No. 1)



Please connect an ATX 12V power supply to this connector.

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**Chassis Intrusion Header**  
(2-pin CI1)  
(see p.2, No. 22)



This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

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## **2. BIOS Information**

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the pre-determined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

## **3. Software Support CD information**

This motherboard supports various Microsoft® Windows® operating systems: 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the BIN folder in the Support CD to display the menus.

## Spezifikationen

<b>Plattform</b>	<ul style="list-style-type: none"> <li>- Micro ATX-Formfaktor</li> <li>- Alle Feste Kondensatordesign</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Unterstützt Sockel-FM2-100-W-Prozessoren</li> <li>- Unterstützt Cool 'n' Quiet™-Technologie von AMD</li> <li>- UMI-Link-GEN2</li> </ul>
<b>Chipsatz</b>	- AMD A55 FCH (Hudson-D2)
<b>Speicher</b>	<ul style="list-style-type: none"> <li>- Unterstützung von Dual-Kanal-Speichertechnologie</li> <li>- 2 x Steckplätze für DDR3</li> <li>- Unterstützt DDR3 1866/1600/1333/1066 non-ECC, ungepufferter Speicher</li> <li>- Max. Kapazität des Systemspeichers: 32GB</li> <li>- Unterstützt Intel® Extreme Memory Profile (XMP)1.3/1.2</li> <li>- Unterstützt AMD Memory Profile (AMP)</li> </ul>
<b>Erweiterungssteckplätze</b>	<ul style="list-style-type: none"> <li>- 1 x PCI-Express-2.0-x16-Steckplätze (PCI-E1: x16-Modus)</li> <li>- 1 x PCI -Steckplätze</li> <li>- Unterstützt AMD duale Grafikkarten</li> </ul>
<b>Onboard-VGA</b>	<ul style="list-style-type: none"> <li>- AMD Radeon HD 7000-Grafik</li> <li>- DirectX 11, Pixel Shader 5.0</li> <li>- Maximal gemeinsam genutzter Speicher 2GB</li> <li>- Unterstützt D-Sub mit einer maximalen Auflösung von 1920 x 1600 bei 60 Hz</li> <li>- Unterstützt AMD Steady Video™ 2.0: Neuartige Funktion der Videonachbearbeitung für automatische Reduzierung von Bildschwankungen bei Heim-/Online-Videos</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIe x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Unterstützt LAN-Kabelerkennung</li> <li>- Unterstützt energieeffizientes Ethernet 802.3az</li> <li>- Unterstützt PXE</li> </ul>
<b>E/A-Anschlüsse an der Rückseite</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x PS/2-Mausanschluss</li> <li>- 1 x PS/2-Tastaturanschluss</li> <li>- 1 x VGA port</li> <li>- 4 x Standard-USB 2.0-Anschlüsse</li> <li>- 1 x RJ-45 LAN Port mit LED (ACT/LINK LED und SPEED LED)</li> <li>- HD Audiobuchse: Audioeingang / Lautsprecher vorne / Mikrofon</li> </ul>

<b>Anschlüsse</b>	<ul style="list-style-type: none"> <li>- 4 x SATA 2-Anschluss mit 3,0 Gb/s, unterstützt RAID- (RAID 0, RAID 1 und RAID 10), NCQ-, AHCI- und „Hot Plugging“-Funktionen</li> <li>- 1 x Verteiler für Gehäuseeindringversuche</li> <li>- 1 x CPUlüfter-Anschluss (4-pin)</li> <li>- 1 x Gehäuselüfter-Anschluss (4-pin)</li> <li>- 24-pin ATX-Netz-Header</li> <li>- 4-pin anschluss für 12V-ATX-Netzteil</li> <li>- Anschluss für Audio auf der Gehäusevorderseite</li> <li>- 2 x USB 2.0-Anschlüsse (Unterstützung 4 zusätzlicher USB 2.0-Anschlüsse)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb AMIs Legal BIOS UEFI mit GUI-Unterstützung</li> <li>- Unterstützung für "Plug and Play"</li> <li>- ACPI 1.1-Weckfunktionen</li> <li>- JumperFree-Modus</li> <li>- SMBIOS 2.3.1</li> <li>- DRAM, SB Stromspannung Multianpassung</li> </ul>
<b>Support-CD</b>	<ul style="list-style-type: none"> <li>- Treiber, Dienstprogramme, Antivirussoftware (Probeversion), CyberLink MediaEspresso 6.5-Testversion, Google Chrome Browser und Toolbar</li> </ul>
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU-Temperatursensor</li> <li>- Motherboardtemperaturerkennung</li> <li>- Drehzahlmessung für CPUlüfter</li> <li>- Drehzahlmessung für Gehäuselüfter</li> <li>- Geräuscharmer CPU-/Gehäuselüfter</li> <li>- Mehrstufige Geschwindigkeitsteuerung für CPU-/Gehäuselüfter</li> <li>- GEHÄUSE OFFEN-Erkennung</li> <li>- Spannungsüberwachung: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Betriebssysteme</b>	<ul style="list-style-type: none"> <li>- Unterstützt Microsoft® Windows® 8 / 8 64-Bit / 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit</li> </ul>
<b>Zertifizierungen</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Gemäß Ökodesign-Richtlinie (ErP/EuP) (Stromversorgung gemäß Ökodesign-Richtlinie (ErP/EuP) erforderlich)</li> </ul>

\* Für die ausführliche Produktinformation, besuchen Sie bitte unsere Website:

<http://www.asrock.com>



## Spécifications

<b>Format</b>	<ul style="list-style-type: none"> <li>- Facteur de forme Micro ATX</li> <li>- Accessoires de Carte mère</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Support des unités centrales Socket FM2 100W</li> <li>- Supporte la technologie Cool 'n' Quiet™ d'AMD</li> <li>- UMI-Link GEN2</li> </ul>
<b>Chipsets</b>	- AMD A55 FCH (Hudson-D2)
<b>Mémoire</b>	<ul style="list-style-type: none"> <li>- Compatible avec la Technologie de Mémoire à Canal Double</li> <li>- 2 x slots DIMM DDR3</li> <li>- Supporter DDR3 1866/ 1600/1333/1066 non-ECC, sans amortissement mémoire</li> <li>- Capacité maxi de mémoire système: 32GB</li> <li>- Prend en charge le profil de mémoire extrême Intel® (XMP) 1.3/1.2</li> <li>- Prend en charge le profil de mémoire AMD (AMP)</li> </ul>
<b>Slot d'extension</b>	<ul style="list-style-type: none"> <li>- 1 x slot PCI Express 2.0 x16 (PCI-E1 à mode x16)</li> <li>- 1 x slot PCI</li> <li>- Support de AMD Dual Graphics</li> </ul>
<b>VGA sur carte</b>	<ul style="list-style-type: none"> <li>- Graphiques à l'AMD Radeon HD 7000</li> <li>- DirectX 11, nuanceur de pixels 5.0</li> <li>- mémoire partagée max 2GB</li> <li>- Prend en charge le D-Sub avec une résolution maximale jusqu'à 1920x1600 @ 60Hz</li> <li>- Supporte AMD Steady Video™ 2.0: Nouvelle fonctionnalité de traitement post-vidéo pour réduction automatique des tremblements dans les clips vidéo en ligne/maison</li> </ul>
<b>Audio</b>	- 5,1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Prise en charge de la détection de câble LAN</li> <li>- Prend en charge la norme Energy Efficient Ethernet (Ethernet à efficacité énergétique) 802.3az</li> <li>- Supporte PXE</li> </ul>
<b>Panneau arrière</b>	I/O Panel <ul style="list-style-type: none"> <li>- 1 x port souris PS/2</li> <li>- 1 x port clavier PS/2</li> <li>- 1 x port VGA</li> <li>- 4 x ports USB 2.0 par défaut</li> <li>- 1 x port LAN RJ-45 avec LED (ACT/LED CLIGNOTANTE et</li> </ul>

	LED VITESSE) - Prise HD Audio: Entrée Ligne / Haut-parleur frontal / Microphone
<b>Connecteurs</b>	- 4 x connecteurs 3,0 Gb/s SATA2, prise en charge des fonctions RAID (RAID 0, RAID 1 et RAID 10), NCQ, AHCI et « Connexion à chaud » - 1 x Embase d'intrusion châssis - 1 x Connecteur pour ventilateur de CPU (br. 4) - 1 x Connecteur pour ventilateur de Châssis (br. 4) - br. 24 connecteur d'alimentation ATX - br. 4 connecteur d'alimentation 12V ATX - Connecteur audio panneau avant - 2 x En-tête USB 2.0 (prendre en charge 4 ports USB 2.0 supplémentaires)
<b>BIOS</b>	- 64Mb AMI UEFI Legal BIOS avec support GUI - Support du "Plug and Play" - Compatible pour événements de réveil ACPI 1.1 - Gestion jumperless - Support SMBIOS 2.3.1 - DRAM, SB Tension Multi-ajustement
<b>CD d'assistance</b>	- Pilotes, utilitaires, logiciel anti-virus (Version d'essai), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser et Toolbar
<b>Surveillance système</b>	- Détection de la température de l'UC - Mesure de température de la carte mère - Tachéomètre ventilateur CPU Ventilateur - Tachéomètre ventilateur Châssis Ventilateur - Ventilateur silencieux pour unité CPU/boîtier - Commande de ventilateur CPU/boîtier à plusieurs vitesses - Détection d'OUVERTURE DE BOÎTIER - Monitoring de la tension: +12V, +5V, +3.3V, Vcore
<b>OS</b>	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit
<b>Certifications</b>	- FCC, CE, WHQL - Prêt pour ErP/EuP (alimentation Prêt pour ErP/EuP requise)

\* Pour de plus amples informations sur les produits, s'il vous plaît visitez notre site web:

<http://www.asrock.com>

## Specifiche

<b>Piattaforma</b>	<ul style="list-style-type: none"> <li>- Micro ATX Form Factor</li> <li>- Design condensatore compatto</li> </ul>
<b>Processore</b>	<ul style="list-style-type: none"> <li>- Supporto per processori socket FM2 100W</li> <li>- Supporto tecnologia AMD Cool 'n' Quiet™</li> <li>- UMI-Link GEN2</li> </ul>
<b>Chipset</b>	- AMD A55 FCH (Hudson-D2)
<b>Memoria</b>	<ul style="list-style-type: none"> <li>- Supporto tecnologia Dual Channel Memory</li> <li>- 2 x slot DDR3 DIMM</li> <li>- Supporto DDR3 1866/1600/1333/1066/800 non-ECC, memoria senza buffer</li> <li>- Capacità massima della memoria di sistema: 32GB</li> <li>- Supporto di Intel® XMP (Extreme Memory Profile) 1.3/1.2</li> <li>- Supporto di AMD AMP (AMD Memory Profile)</li> </ul>
<b>Slot di espansione</b>	<ul style="list-style-type: none"> <li>- 1 x slot PCI Express 2.0 x16 (PCI-E1: modalità x16)</li> <li>- 1 x slot PCI</li> <li>- Supporta AMD Dual Graphics</li> </ul>
<b>VGA su scheda</b>	<ul style="list-style-type: none"> <li>- Grafica AMD Radeon HD 7000</li> <li>- DirectX 11, Pixel Shader 5.0</li> <li>- Memoria massima condivisa 2GB</li> <li>- Supporta D-Sub con risoluzione massima fino a 1920x1600 @ 60Hz</li> <li>- Supporta AMD Steady Video™ 2.0: Nuova capacità di post-elaborazione video per la riduzione automatica delle vibrazioni nei video a casa/on-line</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Supporta il rilevamento cavo LAN</li> <li>- Supporto di Energy Efficient Ethernet 802.3az</li> <li>- Supporta PXE</li> </ul>
<b>Pannello posteriore I/O</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x porta PS/2 per mouse</li> <li>- 1 x porta PS/2 per tastiera</li> <li>- 1 x Porta VGA</li> <li>- 4 x porte USB 2.0 già integrate</li> <li>- 1 x porte LAN RJ-45 con LED (LED azione/collegamento e LED velocità)</li> <li>- Connettore HD Audio: ingresso linea / cassa frontale / microfono</li> </ul>

Italiano

<b>Connettori</b>	<ul style="list-style-type: none"> <li>- 4 x connettori SATA2 3,0 Gb/s, supporto di RAID (RAID 0, RAID 1 e RAID 10) e delle funzioni NCQ, AHCI e "Hot Plug"</li> <li>- 1 x header di intrusione dello chassis</li> <li>- 1 x Connettore CPU ventola (4-pin)</li> <li>- 1 x Connettore Chassis ventola (4-pin)</li> <li>- 24-pin collettore alimentazione ATX</li> <li>- 4-pin connettore ATX 12V</li> <li>- Connettore audio sul pannello frontale</li> <li>- 2 x Collettore USB 2.0 (supporta 4 porte USB 2.0)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS con interfaccia di supporto</li> <li>- Supporta "Plug and Play"</li> <li>- Compatibile con ACPI 1.1 wake up events</li> <li>- Supporta jumperfree</li> <li>- Supporta SMBIOS 2.3.1</li> <li>- Regolazione multi-voltaggio DRAM, SB</li> </ul>
<b>CD di supporto</b>	<ul style="list-style-type: none"> <li>- Driver, utilità, software antivirus (Versione dimostrativa), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser e Toolbar</li> </ul>
<b>Monitoraggio Hardware</b>	<ul style="list-style-type: none"> <li>- Sensore per la temperatura del processore</li> <li>- Sensore temperatura scheda madre</li> <li>- Indicatore di velocità per la ventola del CPU</li> <li>- Indicatore di velocità per la ventola del chassis</li> <li>- Ventola CPU/chassis silenziosa</li> <li>- Ventola CPU/chassis con controllo di varie velocità</li> <li>- Rilevamento CASE APERTO</li> <li>- Voltaggio: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Compatibilità SO</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64 bit / 7 / 7 64 bit / Vista™ / Vista™ 64 bit</li> </ul>
<b>Certificazioni</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Predisposto ErP/EuP (è necessaria l'alimentazione predisposta per il sistema ErP/EuP)</li> </ul>

\* Per ulteriori informazioni, prega visitare il nostro sito internet: <http://www.asrock.com>

## Especificación

<b>Plataforma</b>	<ul style="list-style-type: none"> <li>- Factor forma Micro ATX</li> <li>- Todo diseño de Capacitor Sólido</li> </ul>
<b>Procesador</b>	<ul style="list-style-type: none"> <li>- Admite procesadores de 100 W para zócalo FM2</li> <li>- Con soporte para tecnología Cool 'n' Quiet™ de AMD</li> <li>- UMI-Link GEN2</li> </ul>
<b>Chipset</b>	- AMD A55 FCH (Hudson-D2)
<b>Memoria</b>	<ul style="list-style-type: none"> <li>- Soporte de Tecnología de Memoria de Doble Canal</li> <li>- 2 x DDR3 DIMM slots</li> <li>- Apoya DDR3 1866/1600/1333/1066 non-ECC, memoria de un-buffered</li> <li>- Máxima capacidad de la memoria del sistema: 32GB</li> <li>- Compatible con Intel® Extreme Memory Profile (XMP)1.3/1.2</li> <li>- Compatible con AMD Memory Profile (AMP)</li> </ul>
<b>Ranuras de Expansión</b>	<ul style="list-style-type: none"> <li>- 1 x ranura PCI Express 2.0 x16 (PCI-E1: modo x16)</li> <li>- 1 x ranura PCI</li> <li>- Admite gráfica dual de AMD</li> </ul>
<b>VGA OnBoard</b>	<ul style="list-style-type: none"> <li>- Tarjeta gráfica AMD Radeon HD 7000</li> <li>- DirectX 11, Pixel Shader 5.0</li> <li>- 2GB de Memoria máxima compartida</li> <li>- Admite D-Sub con una resolución máxima de 1920x1600 a 60 Hz</li> <li>- Admite AMD Steady Video™ 2.0: Nueva capacidad de pospro cesamiento de vídeo para reducción automática de oscila ciones en vídeo doméstico y en línea</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIe x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Admite detección de conexión de cable LAN</li> <li>- Compatible con Ethernet 802.3az de bajo consumo energético</li> <li>- Compatible con PXE</li> </ul>
<b>Entrada/Salida de Panel Trasero</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x puerto de ratón PS/2</li> <li>- 1 x puerto de teclado PS/2</li> <li>- 1 x Puerto VGA</li> <li>- 4 x puertos USB 2.0 predeterminados</li> <li>- 1 x Puerto LAN RJ-45 con LED (LED de ACCIÓN/ ENLACE y LED de VELOCIDAD)</li> <li>- Conexión de audio: Entrada de línea / Altavoz frontal /</li> </ul>

	Micrófono
<b>Conectores</b>	<ul style="list-style-type: none"> <li>- 4 x conectores SATA2 de 3,0 Gb/s compatibles con funciones RAID (RAID 0, RAID 1 y RAID 10), NCQ, AHCI y de "conexión en caliente" compatibles con funciones NCQ, AHCI y de "conexión en caliente"</li> <li>- 1 x Conector de detección de intrusión en el chasis</li> <li>- 1 x Conector de ventilador de CPU (4-pin)</li> <li>- 1 x Conector de ventilador de chasis (4-pin)</li> <li>- 24-pin cabezal de alimentación ATX</li> <li>- 4-pin conector de ATX 12V power</li> <li>- Conector de audio de panel frontal</li> <li>- 2 x Cabezal USB 2.0 (admite 4 puertos USB 2.0 adicionales)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb AMI BIOS legal UEFI AMI compatible con GUI</li> <li>- Soporta "Plug and Play"</li> <li>- ACPI 1.1 compliance wake up events</li> <li>- Soporta "jumper free setup"</li> <li>- Soporta SMBIOS 2.3.1</li> <li>- Múltiple ajuste de DRAM, SB Voltage</li> </ul>
<b>CD de soport</b>	<ul style="list-style-type: none"> <li>- Controladores, Utilerías, Software de Anti Virus (Versión de prueba), Prueba de CyberLink MediaEspresso 6.5, Google Chrome Browser y Toolbar</li> </ul>
<b>Monitor Hardware</b>	<ul style="list-style-type: none"> <li>- Sensibilidad a la temperatura del procesador</li> <li>- Sensibilidad a la temperatura de la placa madre</li> <li>- Taquímetros de los ventiladores del procesador</li> <li>- Taquímetros de los ventiladores del chasis</li> <li>- Ventilador silencioso del CPU y el chasis</li> <li>- Control de ajuste de la velocidad del ventilador de la CPU y el chasis</li> <li>- Control de APERTURA DE CARCASA</li> <li>- Monitor de Voltaje: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>- En conformidad con Microsoft® Windows® 8 / 8 64 bits / 7 / 7 64 bits / Vista™ / Vista™ 64 bits</li> </ul>
<b>Certificaciones</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Cumple con la directiva ErP/EuP (se requiere una fuente de alimentación que cumpla con la directiva ErP/EuP)</li> </ul>

\* Para más información sobre los productos, por favor visite nuestro sitio web:

<http://www.asrock.com>

## Спецификации

<b>Платформа</b>	- форм-фактор Micro ATX - Весь Твердый Конденсаторный проект
<b>Процессор</b>	- Поддерживаются процессоры для гнезда Socket FM2 с потребляемой мощностью до 100 Вт - Поддержка технологии AMD Cool 'n' Quiet™ - UMI-Link GEN2
<b>Набор микросхем</b>	- AMD A55 FCH (Hudson-D2)
<b>Память</b>	- Поддержка технологии Dual Channel DDR3 Memory Technology - 2 x гнезда DDR3 DIMM - Поддержите DDR3 1866/1600/1333/1066 не- ECC, безбуферная память - Макс. 32 Гб - поддержка профиля Intel® Extreme Memory Profile (XMP)1.3/1.2 - поддержка профиля AMD Memory Profile (AMP)
<b>Гнезда расширения</b>	- 1 x гнезда PCI Express 2.0 x16 (PCIЕ1: режим x16) - 1 x гнезда PCI - Поддерживаются режимы AMD двойные видеокарты
<b>Графика</b>	- Видеоадаптер AMD Radeon HD 7000 - Поддержка DirectX 11, Pixel Shader 5.0 - Макс. объем разделяемой памяти 2GB - Поддержка D-Sub с максимальным разрешением до 1920x1600 @ 60 Гц - Поддержка технологии AMD Steady Video™ 2.0: новая функция постобработки видеоизображения для автоматического устранения дрожания при просмотре домашних и онлайн-видео записей
<b>Аудиосистема</b>	- 5.1 CH HD Audio HD (Кодер-декодер Audio Realtek ALC662)
<b>ЛВС</b>	- PCIЕ x 1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Поддержка определения кабеля ЛВС - Поддержка энергосберегающего интерфейса Ethernet 802.3az - Поддержка PXE
<b>Разъемы ввода-вывода на задней панели</b>	I/O Panel - 1 x порт мыши PS/2 - 1 x порт клавиатуры PS/2 - 1 x VGA порт - 4 x порта USB 2.0 на задней панели в стандартной конфигурации - Разъем 1 x RJ-45 LAN с светодиодным индикатором (индикатор ACT/LINK и индикатор SPEED) - Соединитель звуковой подсистемы: линейный вход / передняя колонка / микрофон

<b>Колодки и плате</b>	<ul style="list-style-type: none"> <li>- 4 x разъема SATA2 3,0 Гбит/с, поддержка функций RAID (RAID 0, RAID 1 и RAID 10), NCQ, AHCI и «горячего подключения»</li> <li>- 1 x разъем датчика открытой крышки</li> <li>- 1 x соединитель CPU FAN (4-контактный)</li> <li>- 1 x соединитель Chassis FAN (4-контактный)</li> <li>- 24-контактный Колодка питания ATX</li> <li>- 4-контактный Разъем ATX 12 В</li> <li>- Аудиоразъем передней панели</li> <li>- 2 x Колодка USB 2.0 (одна колодка для поддержки 4 дополнительных портов USB 2.0)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS с поддержкой графического интерфейса пользователя</li> <li>- поддержка "Plug and Play"</li> <li>- ACPI 1.1, включение по событиям</li> <li>- поддержка режима настройки без перемычек</li> <li>- поддержка SMBIOS 2.3.1</li> <li>- Регулировка напряжений DRAM, SB</li> </ul>
<b>Компактдиск поддержки</b>	- Драйверы, Утилиты, Антивирус (пробная версия), Пробная версия программы CyberLink MediaEspresso 6.5, Google Chrome Browser и Toolbar
<b>Контроль оборудования</b>	<ul style="list-style-type: none"> <li>- Датчики температуры процессора</li> <li>- Датчики температуры корпуса</li> <li>- Тахометры вентиляторов ЦП FAN</li> <li>- Тахометры вентиляторов Шасси FAN</li> <li>- Бесшумный вентилятор ЦП/Шасси блока</li> <li>- Мультиконтроль скорости вентилятора ЦП/Шасси</li> <li>- Определение открытой крышки</li> <li>- Контроль напряжения: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Операционные системы</b>	- Совместимость с Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Поддержка 64-разрядной версии Vista™
<b>Сертификаты</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Совместимость с ErP/EuP Ready (требуется блок питания совместимый с ErP/EuP)</li> </ul>

\* Для детальной информации продукта, пожалуйста посетите наш вебсайт:  
<http://www.asrock.com>



## Especificações

<b>Plataforma</b>	<ul style="list-style-type: none"> <li>- Formato Micro ATX</li> <li>- Design de condensadores banhados a ouro de alta qualidade</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Suporte para processadores com Socket FM2 de 100W</li> <li>- Suporta a tecnologia Cool 'n' Quiet da AMD</li> <li>- UMI-Link GEN2</li> </ul>
<b>Chipsets</b>	- AMD A55 FCH (Hudson-D2)
<b>Memória</b>	<ul style="list-style-type: none"> <li>- Suporte à tecnologia de memória de duplo canal</li> <li>- 2 x slots de DDR3 DIMM</li> <li>- Suporta memória DDR3 1866/1600/1333/1066, não ECC, sem tampão</li> <li>- Capacidade máxima de memória do sistema: 32GB</li> <li>- Suporta Extreme Memory Profile (XMP) 1.3/1.2 da Intel®</li> <li>- Suporta Perfil de Memória AMD (AMP)</li> </ul>
<b>Slots de Expansão</b>	<ul style="list-style-type: none"> <li>- 1 x slot de PCI Express 2.0 x16 (PCI-E1: modo x16)</li> <li>- 1 x slot de PCI</li> <li>- Suporta Dual Graphics da AMD</li> </ul>
<b>VGA integrado</b>	<ul style="list-style-type: none"> <li>- Placa gráfica AMD Radeon HD Série 7000</li> <li>- DirectX 11, Pixel Shader 5.0</li> <li>- Memória partilhada máxima 2GB</li> <li>- Suporta D-Sub com resolução máxima até 1920x1600 @ 60Hz</li> <li>- Suporta AMD Steady Video™ 2.0: Nova capacidade de pós-processamento de vídeo para redução automática de vibrações em vídeo local/online</li> </ul>
<b>Áudio</b>	- Áudio HD de 5.1 canais (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Suporta Detecção de cabo LAN</li> <li>- Suporta Ethernet com Eficiência Energética 802.3az</li> <li>- Suporta PXE</li> </ul>
<b>Entrada/Saída pelo painel</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x porta para mouse PS/2</li> <li>- 1 x porta para teclado PS/2</li> <li>- 1 x porta VGA</li> <li>- 4 x portas USB 2.0 padrão</li> <li>- 1 x porta LAN RJ-45 com LED (LED ACT/LIG e LED VELOCIDADE)</li> <li>- Ficha de áudio HD: Entrada de linha / Altifalante frontal / Microfone</li> </ul>

<b>Conectores</b>	<ul style="list-style-type: none"> <li>- 4 x conectores SATA2 a 3,0 Gb/s, com suporte para RAID (RAID 0, RAID 1 e RAID 10), NCQ, AHCI e funções Hot Plug</li> <li>- 1 x Conector de intrusão no chassis</li> <li>- 1 x Conector do ventilador da CPU (4 pinos)</li> <li>- 1 x Conector do ventilador da chassis (4 pinos)</li> <li>- 1 x Conector de intrusão no chassis</li> <li>- Conector de força do ATX de 24 pinos</li> <li>- Conector ATX 12 V de 4 pinos</li> <li>- Conector Áudio do painel frontal</li> <li>- 2 x cabezal USB 2.0 (suporta 4 portas USB 2.0)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb BIOS UEFI oficial da AMI com suporte para GUI</li> <li>- Suporta dispositivos "Plug and Play"</li> <li>- ACPI 1.1 atendendo a eventos de "wake up"</li> <li>- Suporta dispositivos sem jumper</li> <li>- Suporte para SMBIOS 2.3.1</li> <li>- DRAM, SB Voltage Multi-adjustment</li> </ul>
<b>CD de suporte</b>	<ul style="list-style-type: none"> <li>- Controladores, utilitários, software antivírus (Experimentacao Versao), CyberLink MediaEspresso 6.5 versão de demonstração, Navegador Google Chrome e Barra de Ferramentas</li> </ul>
<b>Monitor do HW</b>	<ul style="list-style-type: none"> <li>- Sensores de temperature do procesador</li> <li>- Medição de temperatura da placa-mãe</li> <li>- Tacômetros de ventilador do Processador</li> <li>- Tacômetros de ventilador do chassis</li> <li>- Ventoinha silenciosa para a CPU/Chassis</li> <li>- CPU/Chassis Fan Controle Multi-Velocidade</li> <li>- Detecção de ABERTURA da CAIXA</li> <li>- Monitoramento de voltagem : +12 V, +5 V, +3.3 V, Vcore</li> </ul>
<b>Sistema Operacional</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 de 64 bits / 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits</li> </ul>
<b>Certificações</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- "ErP/EuP Ready" (é necessária alimentação eléctrica "ErP/EuP Ready")</li> </ul>

\* Para informações mais detalhadas por favor visite o nosso sítio Web: <http://www.asrock.com>

## Özellikler

<b>Platform</b>	- Micro ATX Form Faktörü - Tüm Katı Kapasitör tasarımı
<b>CPU</b>	- Yuva Tipi FM2 100W İşlemcileri destekler - AMD'nin Cool 'n' Quiet™ Teknolojisini Destekler - UMI-Bağlantısı GEN2
<b>Yonga seti</b>	- AMD A55 FCH (Hudson-D2)
<b>Bellek</b>	- Çift Kanallı DDR3 Belleği Teknolojisi - 2 x DDR3 DIMM yuva - DDR3 1866/1600/1333/1066 ECC olmayan, ara belleksiz bellek - Sistem belleğinin maks. kapasitesi: 32 GB - Intel® Extreme Bellek Profilini (XMP)1.3/1.2 destekler - AMD Bellek Profilini (AMP) destekler
<b>Genişletme Yuvası</b>	- 1 x PCI Express 2.0 x16 yuva (PCI-E1: x16 modu) - 1 x PCI yuva - AMD Dual Graphics'i destekler
<b>Grafikler</b>	- AMD Radeon HD 7000 grafik - DirectX 11, Pixel Shader 5.0 - Maks. paylaşılan bellek 2GB - 60Hz'de 1920x1600'ya kadar maks. çözünürlükle D-Sub'a destekler - AMD Steady Video™'yu destekler 2.0: Ev/çevrimiçi videoda otomatik titreşim azaltma için yeni video işleme sonrası özelliği
<b>Ses</b>	- (Realtek ALC662 Ses Codec'i) 5,1 Kanal HD Ses
<b>LAN</b>	- PCI-E x1 Gigabit LAN 10/100/1000 Mb/sn - Realtek RTL8111E - LAN Kablo Algılama'yı destekler - Enerji Verimli Ethernet 802.3az desteği - PXE'yi destekler
<b>Arka Panel G/3</b>	G/3 Paneli - 1 x PS/2 Fare Portu - 1 x PS/2 Klavye Portu - 1 x VGA Portu - 4 x Kullanıma Hazır USB 2.0 Portu - 1 x RJ-45 LAN Portu, LED'li (AKT/LAN LED'i ve HIZ LED) - HD Ses Jakı: Hat Girişi / Ön Hoparlör / Mikrofon

Türkçe

<b>Konektör</b>	<ul style="list-style-type: none"> <li>- 4 x SATA2 3,0Gb/sn konektör, donanım RAID (RAID 0, RAID 1 ve RAID 10), NCQ, AHCI ve "Sistem Açıkken Belleğin Takma" işlevlerini</li> <li>- 1 x Kasaya Yetkisiz Erişim fişi</li> <li>- 1 x CPU FAN konektörü (4 pin)</li> <li>- 1 x Kasa FAN konektörü (4 pin)</li> <li>- 24 pin ATX güç konektörü</li> <li>- 4 pin 12V güç konektörü</li> <li>- Ön panel ses konektörü</li> <li>- 2 x USB 2.0 fiş (4 USB 2.0 portu destekler)</li> </ul>
<b>BIOS Özelliği</b>	<ul style="list-style-type: none"> <li>- 64 Mb GUI destekli AMI UEFI Geçerli BIOS</li> <li>- "Tak Çalıştır"ı destekler</li> <li>- ACPI 1.1 Uyumlu Uyandırma Olayları</li> <li>- Jumpersız ayarlamayı destekler</li> <li>- AMBIOS 2.3.1 Desteği</li> <li>- DRAM, SB Voltaj Çoklu ayarı</li> </ul>
<b>Destek CD'si</b>	<ul style="list-style-type: none"> <li>- Sürücüler, Yardımcı Programlar, AntiVirüs Yazılımı (Deneme Sürümü), CyberLink MediaEspresso 6.5 Deneme Sürümü, Google Chrome Browser ve Toolbar</li> </ul>
<b>Donanım Monitör</b>	<ul style="list-style-type: none"> <li>- CPU Sıcaklık Duyarlılığı</li> <li>- Kasa Sıcaklık Duyarlılığı</li> <li>- CPU Fan Takometresi</li> <li>- Kasa Fan Takometresi</li> <li>- CPU/Kasa Sessiz Fanı</li> <li>- CPU/Kasa Fan Çoklu-Hız Kontrolü</li> <li>- KASA AÇIK algılaması</li> <li>- Voltaj İzleme: +12V, +5V, +3,3V, CPU Vcore</li> </ul>
<b>İS</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit uyumlu</li> </ul>
<b>Sertifikalar</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP Hazır (ErP/EuP hazır güç kaynağı gerekli)</li> </ul>

\* Ayrıntılı ürün bilgileri için lütfen web sitemizi ziyaret edin: <http://www.asrock.com>

## 설명서

플랫폼	- Micro ATX 폼 팩터 - 완전 고체 축전지 디자인
CPU	- 소켓 FM2 100W 프로세서 지원 - AMD 의 Cool 'n' Quiet™ 기술 지원 - UMI-Link GEN2
칩셋	- AMD A55 FCH (Hudson-D2)
메모리	- 듀얼 채널 메모리 기술 지원 - DDR3 DIMM 슬롯 2 개 - DDR3 1866/1600/1333/1066 비-ECC, 언버퍼드 메모리를 지원 - 최대 시스템 메모리 용량 : 32GB - Intel® 익스트림 메모리 프로파일 (XMP) 1.3/1.2 지원 - AMD 메모리 프로파일 (AMP) 지원
확장 슬롯	- 1 개의 PCI Express 2.0 x16 슬롯 (PCI-E1: x16 모드) - 1 개의 PCI 슬롯 - AMD 듀얼 그래픽 지원
온보드 VGA	- AMD 의 라데온 HD 7000 그래픽 - DirectX 11, Pixel Shader 5.0 - 최대 공유 메모리 2GB - 최대 해상도 1920x1600 @ 60Hz 까지 D-Sub 지원 - AMD Steady Video™ 2.0 지원 : 홈 / 온라인 비디오의 자동 떨림감소를 위한 새로운 비디오 포스트 프로세싱 능력
오디오	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
랜	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - LAN 케이블 감지 지원 - 절전형 이더넷 802.3az 지원 - PXE 지원
후면판 I/O	I/O Panel - 1 개 PS/2 마우스 포트 - 1 개 PS/2 키보드 포트 - 1 개의 VGA 포트 - 4 개디폴트 USB 2.0 포트 - 1 개 LED(ACT/LINK LED 및 SPEED LED) 가 있는 RJ-45 LAN 포트 - 오디오 잭 : 라인 인 / 전방 스피커 / 마이크

고  
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가

온보드 헤더 및 커넥터	<ul style="list-style-type: none"> <li>- 4 개 의 SATA2 3.0Gb/s 커넥터 , RAID (RAID 0, RAID 1 및 RAID 10), NCQ, AHCI 및 “ 핫 플러그 ” 기능 지원</li> <li>- 새시 침입 헤더 1 개</li> <li>- CPU 팬 커넥터 1 개 (4 핀 )</li> <li>- 새시 팬 커넥터 1 개 (4 핀 )</li> <li>- 24 핀 ATX 전원 헤더</li> <li>- 4 핀 ATX 12V 파워 콘넥터</li> <li>- 전면부 오디오 콘넥터</li> <li>- USB 2.0 헤더 2 개 (4 개의 추가 USB 2.0 포트를 지원하는 헤더 2 개 )</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 64Mb GUI 지원을 제공하는 AMI UEFI 적합형 BIOS</li> <li>- “플러그 앤 플레이” 지원</li> <li>- ACPI 1.1 웨이크 - 업 이벤트와의 호환</li> <li>- 점퍼 프리 지원</li> <li>- SMBIOS 2.3.1 지원</li> <li>- DRAM, SB 전압 멀티 조절</li> </ul>
지원 CD	<ul style="list-style-type: none"> <li>- 드라이버 , 유틸리티 , 안티바이러스 소프트웨어 ( 시험판 ) , CyberLink MediaEspresso 6.5 평가판 , Google Chrome Browser 및 Toolbar</li> </ul>
하드웨어 모니터	<ul style="list-style-type: none"> <li>- CPU 온도 감지</li> <li>- 마더보드 온도 감지</li> <li>- CPU 회전 속도계 : 샤프 ( 케이스 ) 팬 회전 속도계</li> <li>- 새시 회전 속도계 : 샤프 ( 케이스 ) 팬 회전 속도계</li> <li>- CPU/ 새시 저소음 팬</li> <li>- CPU/ 새시 팬 멀티스피드 컨트롤</li> <li>- 케이스 열림 감지</li> <li>- 전압 감시 기능 : +12V,+5V,+3.3V,Vcore</li> </ul>
OS	<ul style="list-style-type: none"> <li>- 마이크로 소프트 Windows® 8/8 64 비트 /7/7 64 비트 /Vista™/ Vista™ 64 비트 와 호환</li> </ul>
인증서	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP 지원 (ErP/EuP 지원 전원 공급기가 요구됨 )</li> </ul>

\* 상세한 제품정보는 당사의 웹사이트를 방문할수있습니다 . <http://www.asrock.com>

## 仕様

プラットフォーム	<ul style="list-style-type: none"> <li>- Micro ATX フォームファクター</li> <li>- 全ソリッド・キャパシター設計</li> </ul>
CPU	<ul style="list-style-type: none"> <li>- Socket FM2 100W Processors に対応</li> <li>- AMD 社 Cool 'n' Quiet™ をサポート</li> <li>- UMI-Link GEN2</li> </ul>
チップセット	- AMD A55 FCH (Hudson-D2)
メモリー	<ul style="list-style-type: none"> <li>- デュアルチャネル DDR3 メモリーテクノロジー</li> <li>- DDR3 DIMM スロット x 2</li> <li>- DDR3 1866/1600/1333/1066 non-ECC, un-buffered メモリーに対応</li> <li>- システムメモリの最大容量: 32GB</li> <li>- Intel® Extreme Memory Profile (XMP)1.3/1.2 をサポート</li> <li>- AMD Memory Profile (AMP) をサポート</li> </ul>
拡張スロット	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 スロット (PCI-E1: x16 モード)</li> <li>- 1 x PCI スロット</li> <li>- AMD Dual Graphics に対応</li> </ul>
グラフィック	<ul style="list-style-type: none"> <li>- AMD Radeon HD 7000 シリーズ</li> <li>- DirectX 11、Pixel Shader 5.0</li> <li>- 最大の共有メモリ 2GB</li> <li>- 1920x1600 @ 60Hz の最大解像度で D-Sub をサポート</li> <li>- AMD Steady Video™ 2.0 のサポート: 家庭 / オンラインビデオの自動ジッター低減用の新しいビデオポストの処理機能</li> </ul>
オーディオ	- 5.1 CH HD オーディオ (Realtek ALC662 オーディオ Codec)
LAN	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- LAN ケーブル検出をサポート</li> <li>- Energy Efficient Ethernet 802.3az をサポート</li> <li>- PXE をサポート</li> </ul>
リアパネル I/O	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- PS/2 マウスポート x 1</li> <li>- PS/2 キーボードポート x 1</li> <li>- VGA ポート x 1</li> <li>- Ready-to-Use USB 2.0 ポート x 4</li> <li>- LED (ACT/LINK LED および SPEED LED) 付き</li> <li>- RJ-45 LAN ポート x 1</li> <li>- オーディオジャック: 入力、前部スピーカー、マイク入力</li> </ul>

コネクタ	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0Gb/秒コネクタが、RAID (RAID 0、RAID 1 および RAID 10)、NCQ、AHCI および "Hot Plug" (ホットプラグ) 機能をサポート</li> <li>- シャーシ侵入ヘッダ x 1</li> <li>- CPU ファンコネクタ x 1 (4 ピン)</li> <li>- シャーシファンコネクタ x 1 (4 ピン)</li> <li>- 24 ピン ATX 電源コネクタ</li> <li>- 4 ピン 12V 電源コネクタ</li> <li>- フロントパネルオーディオコネクタ</li> <li>- USB 2.0 ヘッダ (USB 2.0 用 4 ポートをサポート) x 2</li> </ul>
BIOS 関連機能	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS(GUI サポート)</li> <li>- プラグ&amp;プレイをサポート</li> <li>- ACPI 1.1 準拠ウェイクアップイベント</li> <li>- jumperfree モードサポート</li> <li>- SMBIOS 2.3.1 サポート</li> <li>- DRAM、SB ブリッジ電圧</li> </ul>
サポート CD	<ul style="list-style-type: none"> <li>- ドライバー、ユーティリティ、アンチウィルスソフトウェアハードウェア (体験版)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser および Toolbar</li> </ul>
モニター	<ul style="list-style-type: none"> <li>- CPU 温度検知</li> <li>- マザーボード温度検知</li> <li>- CPU ファンタコメータ</li> <li>- シャーシファンタコメータ</li> <li>- CPU/ マザーボード静音ファン</li> <li>- CPU/ シャーシファンマルチ速度制御</li> <li>- ケースオープン検出</li> <li>- 電源モニター: +12V, +5V, +3.3V, Vcore</li> </ul>
OS	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8 / 8 64-bit / 7/7 64-bit/ Vista™/Vista™ 64-bit compliant</li> </ul>
認証	<ul style="list-style-type: none"> <li>- FCC, CE, Microsoft® WHQL 認証済み</li> <li>- ErP/EuP 対応(ErP/EuP 対応の電源装置が必要です)</li> </ul>

\* 製品の詳細については、<http://www.asrock.com> を御覧ください。



## 主板规格

架构	<ul style="list-style-type: none"> <li>- Micro ATX 规格</li> <li>- 全固态电容设计</li> </ul>
处理器	<ul style="list-style-type: none"> <li>- FM2 插槽支持 100W 处理器</li> <li>- 支持 AMD Cool 'n' Quiet™ 冷静技术</li> <li>- UMI-Link GEN2</li> </ul>
芯片组	- AMD A55 FCH (Hudson-D2)
系统内存	<ul style="list-style-type: none"> <li>- 支持双通道 DDR3 内存技术</li> <li>- 配备 2 个 DDR3 DIMM 插槽</li> <li>- 支持 DDR3 1866/1600/1333/1066 non-ECC、un-buffered 内存</li> <li>- 最高支持 32GB 系统容量</li> <li>- 支持 Intel® Extreme Memory Profile(XMP)1.3/1.2</li> <li>- 支持 AMD Memory Profile(AMP)</li> </ul>
扩展插槽	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 插槽 (PCIe1: x16 模式)</li> <li>- 1 x PCI 插槽</li> <li>- 支持 AMD 双显卡技术</li> </ul>
板载显卡	<ul style="list-style-type: none"> <li>- AMD Radeon HD 7000 显卡</li> <li>- DirectX 11、Pixel Shader 5.0 技术</li> <li>- 最大共享内存 2GB</li> <li>- 支持 D-Sub, 最高分辨率达 1920x1600 @ 60Hz</li> <li>- 支持 AMD Steady Video™ 2.0: 最新视频后处理能力, 可为家庭 / 在线视频提供自动降低抖动的功能</li> </ul>
音效	- 5.1 声道高保真音频 (Realtek ALC662 音频编解码器)
板载 LAN 功能	<ul style="list-style-type: none"> <li>- PCIe x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- 支持网路线侦测功能</li> <li>- 支持 Energy Efficient Ethernet 802.3az</li> <li>- 支持 PXE</li> </ul>
Rear Panel I/O (后面板输入 / 输出接口)	I/O 界面 <ul style="list-style-type: none"> <li>- 1 个 PS/2 鼠标接口</li> <li>- 1 个 PS/2 键盘接口</li> <li>- 1 个 VGA 接口</li> <li>- 4 个可直接使用的 USB 2.0 接口</li> <li>- 1 个 RJ-45 局域网接口与 LED 指示灯 (ACT/LINK LED 和 SPEED LED)</li> <li>- 高保真音频插孔: 音频输入 / 前置喇叭 / 麦克风</li> </ul>

连接头	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0Gb/s 连接头，支持 RAID (RAID 0, RAID 1 和 RAID 10), NCQ, AHCI 和热插拔功能</li> <li>- 1 x 机箱开启警告功能接针</li> <li>- 1 x CPU 风扇接头 (4 针)</li> <li>- 1 x 机箱风扇接头 (4 针)</li> <li>- 24 针 ATX 电源接头</li> <li>- 4 针 12V 电源接头</li> <li>- 前置音频面板接头</li> <li>- 2 x USB 2.0 接口 (可支持 4 个额外的 USB 2.0 接口)</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS, 支持 GUI</li> <li>- 支持即插即用 (Plug and Play, PnP)</li> <li>- ACPI 1.1 电源管理唤醒功能</li> <li>- 支持 jumperfree 免跳线模式</li> <li>- DRAM、SB 电压多功能调节器</li> </ul>
支持光盘	- 驱动程序、工具软件、杀毒软件 (测试版本)、CyberLink MediaEspresso 6.5 试用版、Chrome 谷歌浏览器和工具栏
硬件监控器	<ul style="list-style-type: none"> <li>- CPU 温度侦测</li> <li>- 主板温度侦测</li> <li>- CPU 风扇转速计</li> <li>- 机箱风扇转速计</li> <li>- CPU/ 机箱静音风扇</li> <li>- CPU/ 机箱风扇多速控制</li> <li>- 机箱开启侦测</li> <li>- 电压范围: +12V, +5V, +3.3V, 核心电压</li> </ul>
操作系统	- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元适用于此主板
认证	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- 支持 ErP/EuP (需要同时使用支持 ErP/EuP 的电源供应器)</li> </ul>

\* 请参阅华擎网站了解详细的产品信息: <http://www.asrock.com>

## 电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。



图一

## 有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注：此产品所标示之环保使用年限，系指在一般正常使用状况下。

## 主機板規格

架構	<ul style="list-style-type: none"> <li>- Micro ATX 規格</li> <li>- 全固態電容設計</li> </ul>
處理器	<ul style="list-style-type: none"> <li>- FM2 插槽支援 100W 處理器</li> <li>- 支援 AMD Cool 'n' Quiet 冷靜技術</li> <li>- UMI-Link GEN2</li> </ul>
晶片組	- AMD A55 FCH (Hudson-D2)
系統記憶體	<ul style="list-style-type: none"> <li>- 支援雙通道 DDR3 記憶體技術</li> <li>- 2 個 DDR3 DIMM 插槽</li> <li>- 支援 DDR3 1866/1600/1333/1066 non-ECC、un-buffered 記憶體</li> <li>- 最高支援 32GB 系統容量</li> <li>- 支援 Intel® Extreme Memory Profile(XMP)1.3/1.2</li> <li>- 支援 AMD Memory Profile(AMP)</li> </ul>
擴充插槽	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 插槽 (PCIe1: x16 模式)</li> <li>- 1 x PCI 插槽</li> <li>- 支援 AMD 雙顯卡技術</li> </ul>
內建顯示	<ul style="list-style-type: none"> <li>- AMD Radeon HD 7000 顯示</li> <li>- DirectX 11 顯示, Pixel Shader 5.0 技術</li> <li>- 最大共享記憶體 2GB</li> <li>- 支援 D-Sub, 最高解析度達 1920x1600 @ 60Hz</li> <li>- 支援 AMD Steady Video™ 2.0: 最新影像後處理能力, 可為家庭 / 線上影像提供自動降低手震的功能</li> </ul>
音效	- 5.1 聲道高清晰音效 (Realtek ALC662 音效編解碼器)
網路功能	<ul style="list-style-type: none"> <li>- PCIe x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- 支援網路線偵測功能</li> <li>- 支援 Energy Efficient Ethernet 802.3az</li> <li>- 支援 PXE</li> </ul>
Rear Panel I/O (後背板輸入 / 輸出接口)	I/O 界面 <ul style="list-style-type: none"> <li>- 1 個 PS/2 滑鼠接口</li> <li>- 1 個 PS/2 鍵盤接口</li> <li>- 1 個 VGA 接口</li> <li>- 4 個可直接使用的 USB 2.0 接口</li> <li>- 1 個 RJ-45 區域網接口與 LED 指示燈 (ACT/LINK LED 和 SPEED LED)</li> <li>- 高清晰音效插孔: 音效輸入 / 前置喇叭 / 麥克風</li> </ul>

接頭	<ul style="list-style-type: none"> <li>- 4 x SATA2 3.0Gb/s 接頭，支援 RAID (RAID 0, RAID 1 和 RAID 10), NCQ, AHCI 和熱插拔功能</li> <li>- 1 x 機殼開啟警告功能接頭</li> <li>- 1 x CPU 風扇接頭 (4 針)</li> <li>- 1 x 機箱風扇接頭 (4 針)</li> <li>- 24 針 ATX 電源接頭</li> <li>- 4 針 12V 電源接頭</li> <li>- 前置音效接頭</li> <li>- 2 x USB 2.0 接頭 (可支援 4 個額外的 USB 2.0 接口)</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS (支援 GUI)</li> <li>- 支援即插即用 (Plug and Play, PnP)</li> <li>- ACPI 1.1 電源管理喚醒功能</li> <li>- 支援 jumperfree 免跳線模式</li> <li>- 支援 SMBIOS 2.3.1</li> <li>- DRAM、SB 電壓多功能調節</li> </ul>
支援光碟	<ul style="list-style-type: none"> <li>- 驅動程式、工具軟體、防毒軟體 (試用版本)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser 和 Toolbar</li> </ul>
硬體監控	<ul style="list-style-type: none"> <li>- CPU 溫度偵測</li> <li>- 主機板溫度偵測</li> <li>- CPU 風扇轉速計</li> <li>- 機箱風扇轉速計</li> <li>- CPU/ 機箱靜音風扇</li> <li>- CPU/ 機箱風扇多速控制</li> <li>- 機殼開啟偵測</li> <li>- 電壓範圍：+12V, +5V, +3.3V, 核心電壓</li> </ul>
操作系統	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元</li> </ul>
認證	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- 支援 ErP/EuP (需要同時使用支援 ErP/EuP 的電源供應器)</li> </ul>

\* 請參閱華擎網站了解詳細的產品訊息：<http://www.asrock.com>

## Spesifikasi

<b>Podium</b>	<ul style="list-style-type: none"> <li>- Faktor Form Mikro ATX</li> <li>- Desain All Solid Capacitor</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Menggunakan Stopkontak FM2 100W processor</li> <li>- Dapat digunakan AM's Cool 'n' Quiet™ Technology</li> <li>- UMI-Link GEN2</li> </ul>
<b>Grup Chip</b>	- AMD A55 FCH (Hudson-D2)
<b>Ingatan</b>	<ul style="list-style-type: none"> <li>- Teknologi ingatan DDR3 dwisaluran</li> <li>- 2 x Alur DDR3 DIMM</li> <li>- Menggunakan DDR3 1866/1600/1333/1066</li> <li>- Kapasitas paling banyak: 32GB</li> <li>- Mendukung Intel® Extreme Memory Profile (XMP)1.3/1.2</li> <li>- Mendukung AMD Memory Profile (AMP)</li> </ul>
<b>Alur Ekspansi</b>	<ul style="list-style-type: none"> <li>- 1 x PCI Express 2.0 x16 slot (PCI-E1: x16 mode)</li> <li>- 1 x Alur PCI</li> <li>- Mendukung AMD Dual Graphics</li> </ul>
<b>Diagram</b>	<ul style="list-style-type: none"> <li>- AMD Radeon HD 7000 Graphics</li> <li>- DirectX 11, Pixel Shader 5.0</li> <li>- Ingatan sama Max. 2GB</li> <li>- Mendukung D-Sub dengan resolusi maksimal hingga 1920x1600 @ 60Hz</li> <li>- Mendukung AMD Video™ 2.0 Tenang: Baru video pasca kemampuan pengolahan untuk pengurangan jutter otomatis pada rumah / online video</li> </ul>
<b>Audio</b>	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIE x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111E</li> <li>- Mendukung Deteksi Kabel LAN</li> <li>- Mendukung Energy Efficient Ethernet 802.3az</li> <li>- Mendukung PXE</li> </ul>
<b>Papan Belakang I/O</b>	I/O Panel <ul style="list-style-type: none"> <li>- 1 x Port Mouse PS/2</li> <li>- 1 x Port Keyboard PS/2</li> <li>- 1 x Port VGA</li> <li>- 4 x Port USB 2.0 siap-dipakai</li> <li>- 1 x RJ-45 LAN Port LED (ACT/LINK LED dan SPEED LED)</li> <li>- HD Audio Jack: Line in / Penyuar Depan / mikropon</li> </ul>

<b>Penghubung</b>	<ul style="list-style-type: none"> <li>- 4 x penghubung SATA2 3.0Gb/s, dapat digunakan RAID (RAID 0, RAID 1 dan RAID 10), NCQ, AHCI dan fungsi fungsi "Hot Plug"</li> <li>- 1 x Chassis Intrusion header</li> <li>- 1 x Penghubung KIPAS CPU (4 pin)</li> <li>- 1 x Penghubung KIPAS casing (4 pin)</li> <li>- Penghubung power 24 pin ATX</li> <li>- Penghubung power 4 pin 12V</li> <li>- Penghubung audio panel depan</li> <li>- 2 x USB 2.0 header (menggunakan 4 port USB 2.0)</li> </ul>
<b>Ciri-ciri BIOS</b>	<ul style="list-style-type: none"> <li>- 64Mb AMI UEFI Legal BIOS dengan dukungan GUI</li> <li>- Menggunakan "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Menggunakan jumperfree</li> <li>- Penyokong AMBIOS 2.3.1</li> <li>- Penyesuaian berbagai tegangan DRAM, SB</li> </ul>
<b>Sokongan CD</b>	- Penggerak, kegunaan, Software AntiVirus (Versi Cobaan), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser dan Toolbar
<b>Penjaga Hardware</b>	<ul style="list-style-type: none"> <li>- Perasa Suhu CPU</li> <li>- Perasa Suhu Casing</li> <li>- Pengukur Kipas CPU</li> <li>- Pengukur Kipas casing</li> <li>- Kipas diam CPU/casing</li> <li>- Kontrol Multi-Kecepatan Kipas CPU/casing</li> <li>- Deteksi CASING TERBUKA</li> <li>- Penjagaan voltasi: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	- dapat digunakan Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit
<b>Sertifikasi</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- ErP/EuP Ready (memerlukan catu daya ErP/EuP ready)</li> </ul>

\* Untuk informasi rinci, silakan kunjungi website kami: <http://www.asrock.com>

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## **Installing OS on a HDD Larger Than 2TB**

This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

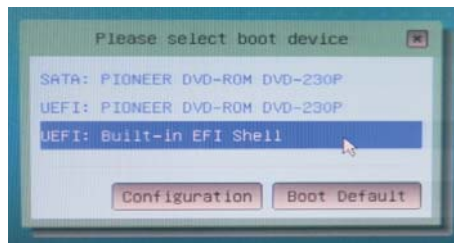
1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above), Windows® 7 64-bit or Windows® 8 64-bit.**
2. Press <F2> or <Delete> at system POST. Set **AHCI Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose the item “**UEFI:xxx**” to boot in UEFI Setup Utility > Boot > Boot Option #1. (“xxx” is the device which contains your Windows® installation files. Normally it is an optical drive.) You can also press <F11> to launch boot menu at system POST and choose the item “**UEFI:xxx**” to boot.
4. Start Windows® installation.



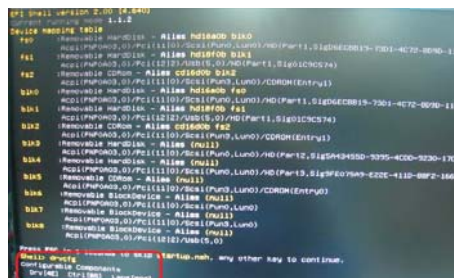
## Installing OS on a HDD Larger Than 2TB in RAID Mode

This motherboard is adopting UEFI BIOS that allows Windows® OS to be installed on a large size HDD (>2TB). Please follow below procedure to install the operating system.

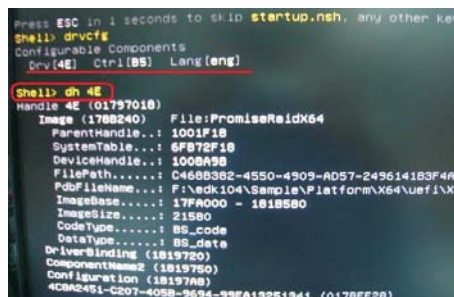
1. Please make sure to use **Windows® Vista™ 64-bit (with SP1 or above), Windows® 7 64-bit or Windows® 8 64-bit.**
2. Press <F2> or <Delete> at system POST. Set **RAID Mode** in UEFI Setup Utility > Advanced > Storage Configuration > SATA Mode.
3. Choose **onboard RAID 3TB+ unlocker > UEFI Mode For GPT partition**. Press <F10> to save the change and exit.
4. Press <F11> to enter Boot Manual. Choose **UEFI : Built - in EFI Shell**.



5. Key in **drvcfg**, for example you will see below:  
**Drv[4E] Ctrl[B5] Lang[eng]**



6. Key in **dh [Drv number]**, for example: key in **dh 4E**.



English

7. And then key in **drvcfg -s [Drv number] [Ctrl number]** to enter Raid Utility.  
For example: key in **drvcfg -s 4E B5**.

```

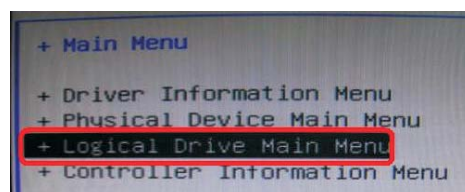
Press ESC in 4 seconds to skip startup.nsh, any other
Shell> drvcfg
Configurable Components
  Drv[4E] Ctrl[B5] Lang[eng]

Shell> dn 4E
Handle 4E (01797010)
  Image (1788240) File:PromiseRaidX64
  ParentHandle...: 1001F18
  SystemTable...: 6FB72F18
  DeviceHandle...: 1008A98
  FilePath.....: C:\688382-4550-4909-AD57-249614183F
  PdbFileName...: F:\edk104\Sample\Platform\X64\uefi
  ImageBase.....: 17FA000 - 181B580
  ImageSize.....: 21580
  CodeType.....: BS_code
  DataType.....: BS_data
  DriverBinding (1819720)
  ComponentName2 (1819750)
  Configuration (18197A8)
  4C8A2451-C207-405B-9694-99EA13251341 (017BEF28)

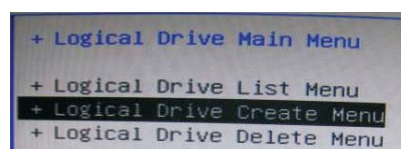
Shell> drvcfg -s 4E B5

```

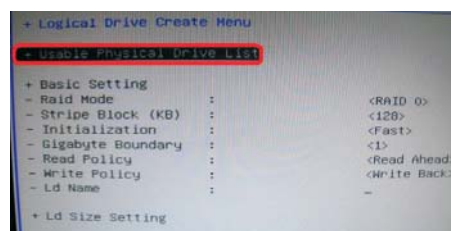
8. Choose **Logical Drive Main Menu** to set up Raid Drive.



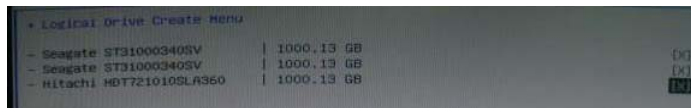
9. Choose **Logical Drive Create Menu** to create a Raid Drive.



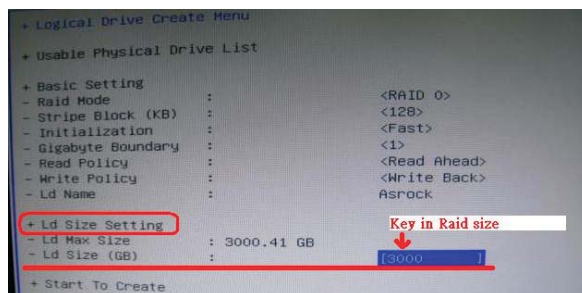
10. Choose **Usable Physical Drive List** to select Raid HDD.



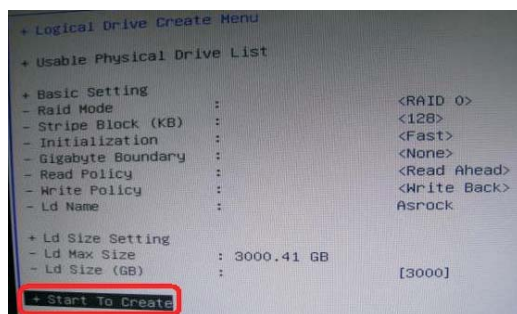
11. Press **Space** on keyboard to toggle checkbox.



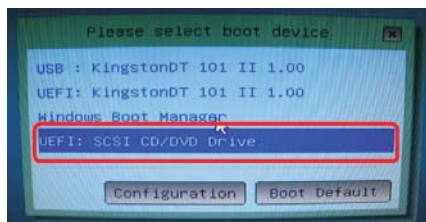
12. Choose **Ld Size setting**, and key in the Raid size.



13. After set up Raid size, please click **Start to Create**.



14. Press <F10> to exit Utility.  
15. During reboot, please press <F11> to enter Boot Manual. Choose **UEFI: SCSI CD/DVD Drive**.



\* This option only shows on Windows® 8 64-bit, 7 64-bit and Vista™ 64-bit OS.

16. Follow Windows® Installation Guide to install OS.

If you install Windows® 8 64-bit / 7 64-bit / Vista™ 64-bit in a large hard disk (ex. Disk volume > 2TB), it may take more time to boot into Windows® or install driver/utilities. If you encounter this problem, you will need to follow following instructions to fix this problem.

**Windows® Vista™ 64-bit:**

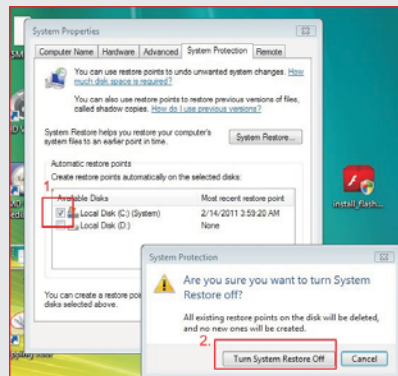
Microsoft® does not provide hotfix for this problem. Below steps are Microsoft® suggested solution:

**A. Disable System Restore.**

- a. Type “systempropertiesprotection” in the Start Menu. Then press “Enter”.



- b. De-select Local Disks for System Restore. Then Click “Turn System Restore Off” to confirm. Then Press “Ok”.

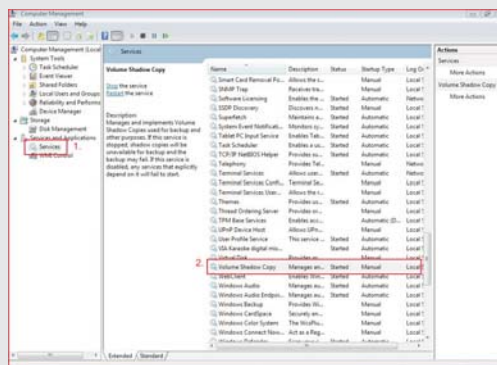


B. Disable "Volume Shadow Copy" service.

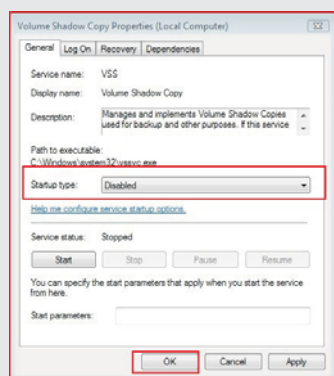
a. Type "computer management" in the Start Menu, then press "Enter".



b. Go to "Services and Applications>Services"; Then double click "Volume Shadow Copy".



c. Set "Startup type" to "Disable" then Click "OK".



English

- 
- C. Reboot your system.
  - D. After reboot, please start to install motherboard drivers and utilities.

**Windows® 8 64-bit / 7 64-bit:**

- A. Please request the hotfix KB2505454 thru this link:  
<http://support.microsoft.com/kb/2505454/>
- B. After installing Windows® 8 64-bit / 7 64-bit, install the hotfix kb2505454.  
(This may take long time; >30 mins.)
- C. Reboot your system. (It may take about 5 mins to boot.)
- D. The Windows® will install this hotfix then reboot by itself.
- E. Please start to install motherboard drivers and utilities.

17. Finish.